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# WASTE DISPOSAL, INC., SUPERFUND SITE Santa Fe Springs, California

# STATUS OF ENVIRONMENTAL INVESTIGATIONS 1988-1999 for Parcel APN 8167-002-003

This Status of Environmental Investigations Report for Parcel APN 8167-002-003 includes a summary of parcel ownership and environmental data for the subject land parcel. The report incorporates information from a variety of sources and organizations collected over a 10-year period during the various investigations of the Waste Disposal, Inc. Superfund Site. During development of the report, the U.S. Environmental Protection Agency made extensive efforts to verify the accuracy of the contents. However, there remains a potential for error originating from the numerous information sources themselves, or in the transcription of those sources. Sources not included or referenced in this report may also exist that could modify or update the conclusions contained in this report. The reader is cautioned to review the original source materials stated in the bibliography and additional sources that may be in the public record before drawing any conclusions regarding the absence or extent of contamination and wastes present within an individual site parcel. In addition, not all areas of each parcel were investigated during the referenced studies. The absence of data or investigative activities for areas of parcels should not be interpreted as meaning that any given area of a parcel does not contain buried wastes. Additional investigation may be warranted to confirm the absence or presence of wastes in any specific location within a parcel. Accordingly, this report is not intended to be singly relied on by any person or entity for any purpose. This report is intended to be a general summation and analysis only of the sources included or referenced herein. The U.S. Environmental Protection Agency is not responsible for the ultimate accuracy of this report nor for any reliance thereon. This report is not an order or final agency action.

December 2000

U.S. ENVIRONMENTAL PROTECTION AGENCY
Region 9
75 Hawthorne Street
San Francisco, California 94105

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## **PARCEL SUMMARY:**

Assessor's Parcel Number 8167-002-003

Title search was conducted for the period covering January 1, 1935 to February 5, 1997

#### **BUILDING ADDRESSES:**

12629 Los Nietos Road

12631 Los Nietos Road

12633 Los Nietos Road

12635 Los Nietos Road

Santa Fe Springs, California

## **CURRENT OWNER:**

The Raymond and Donnis Holbrook Trust, since April 29, 1982

A complete chain of title, which is current through February 5, 1997, is included as Attachment 1 of this report.

#### INTRODUCTION

Parcel 8167-002-003 (Parcel 003) is one of 22 land parcels that collectively comprise the Waste Disposal, Inc. (WDI) Superfund Site (Figure 1). These 22 land parcels were identified by the U.S. Environmental Protection Agency (EPA) in July of 1987 as requiring investigation under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) due to the prior use of the properties for waste disposal activities. This determination resulted in the WDI site's being placed on the National Priorities List (NPL) of hazardous waste sites for investigation and cleanup under CERCLA.

The main feature of the approximately 43-acre WDI site is a buried 42-million gallon concrete-lined reservoir in the center of the site that was constructed by 1924 as a covered container for crude petroleum storage. The areas outside of and adjacent to the reservoir began to be used for the unregulated disposal of a variety of liquid and solid wastes and the possible storage and mixing of drilling muds by the late 1920s. Between 1937 and 1941, the reservoir cover was removed. After the removal of the reservoir cover, from the early to mid 1940s onward; the reservoir began to be used for the disposal of wastes.

The site operated under a disposal permit beginning in 1949 until at least 1964, and operated perhaps for two to three years afterward. Permitted wastes included rotary drilling muds, clean earth, rock, sand, gravel, paving fragments, concrete, brick, plaster, steel mill slag, dry mud cake from oil field sumps, and acetylene sludge. Investigations have shown that disposed materials also included, but were not limited to, the following unpermitted wastes: organic wastes, oil refinery wastes, solvents, petroleum-related chemicals, and other chemical wastes. Wastes were disposed within the reservoir and on site areas adjacent to the reservoir.

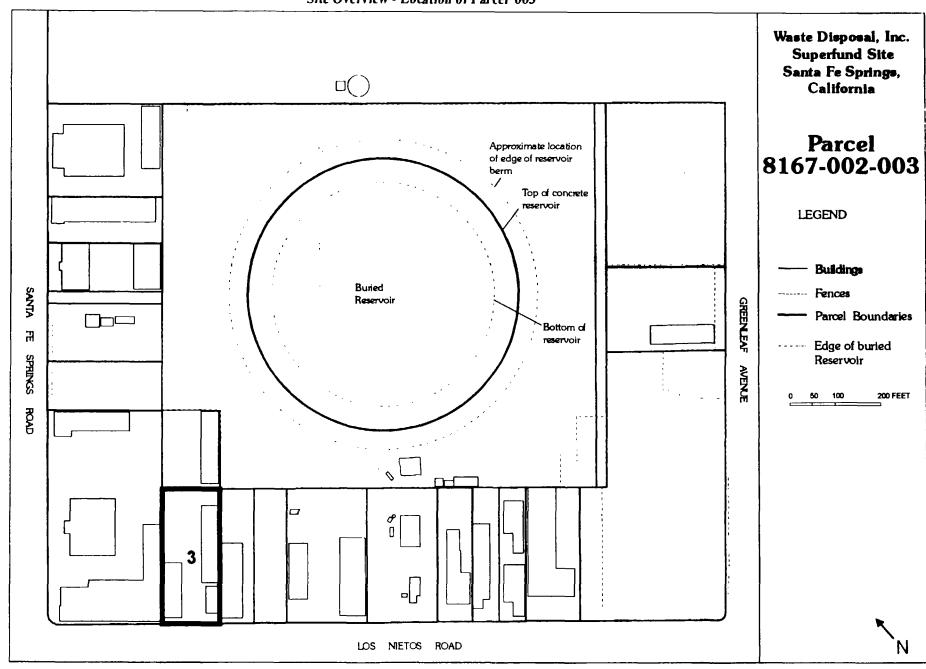
During the 1950s, while disposal activities continued, the reservoir and some of the adjacent and surrounding areas began to be covered with fill material. Some of the perimeter areas of the site outside the reservoir began to be developed for commercial and industrial use. By 1963, the reservoir was covered with fill and by 1964, most, although not all, disposal activities appeared to have ceased. Grading of the fill cover continued until 1966. Currently, more than 20 buildings containing small businesses operate along the perimeter edges of three sides of the site.

In 1988, EPA began the remedial investigation (RI) of the site to determine the extent of buried wastes, and the presence of chemical wastes in soil, soil gas, and groundwater. This work involved drilling soil borings for soil sample collection and the installation of soil vapor and groundwater monitoring wells. EPA used the information collected during the RI to evaluate remedial alternatives in the WDI Feasibility Study Report, issued in 1993. Because the burial of wastes at the site makes it a landfill, EPA identified as the selected remedy in the 1993 Record of Decision (ROD) a remedy typical of landfill closures, consisting of capping of the reservoir area and excavation of wastes from some areas outside of the reservoir for consolidation with the wastes beneath the cap over the reservoir.

As of the time of this report, EPA has identified certain current owners or operators, former owners or operators who owned or operated the property at times of waste disposal, former operators of WDI, and generators of wastes disposed of at the site. These parties are considered as potentially responsible parties

10/25/99

Figure 1: Waste Disposal, Inc., Santa Fe Springs, CA Site Overview - Location of Parcel 003



(PRPs) under CERCLA. Under CERCLA, PRPs can be required to remediate any environmental and human health threats through response actions and to reimburse EPA for its costs in investigating and cleaning up the contaminated site. A group of PRPs known as the Waste Disposal, Inc. Group (WDIG) initiated the remedial design work for this remedy in 1995 under an EPA enforcement order.

The 1993 ROD did not specifically address groundwater. Because uncertainties remained about the extent of groundwater and soil gas contamination, and because further environmental data were necessary for completion of the remedial design, EPA and the WDIG conducted further site investigations. EPA and the WDIG completed the majority of these additional investigations during the summer of 1998, and EPA is compiling data in order to re-evaluate the selected remedial action and to facilitate remedial design.

This Status of Environmental Investigations Report for Parcel 003 presents the notable findings from the various investigations of the WDI site conducted as of 1998 specific to this parcel. Although data emphasis is placed on what is known for this parcel, selected findings from adjacent parcels may be provided when appropriate. Attachment 1 contains a chronological chain of title for Parcel 003 through February 5, 1997.

## **OVERVIEW OF ENVIRONMENTAL SAMPLING INVESTIGATIONS**

# EPA 1988 Remedial Investigation

In 1988, EPA conducted the first investigation of the WDI site under CERCLA. This investigation involved the collection of groundwater, soil, and soil gas samples at the site. One soil boring (SB-082) was drilled at this parcel by EPA during the 1988 investigation that was subsequently converted to soil gas vapor well VW18. Figure 2 shows the location of SB-082 and VW18. The boring log for SB-082 is provided as Attachment 2. Table 1 presents the analytical results for the soil samples collected from SB-082.

Table 1
Soil Sample Analytical Results for SB-082 (1988 Remedial Investigation)

Sample Depth (ft)	1993 Record of Decision Standard*	10	20	25	30	40
Analytical Parameter	ppb	ppb	ppb	ppb	ppb	ppb
Benzene	2,800	10	2	2	2	ND
Toluene	NE	190	21	18	68	2_

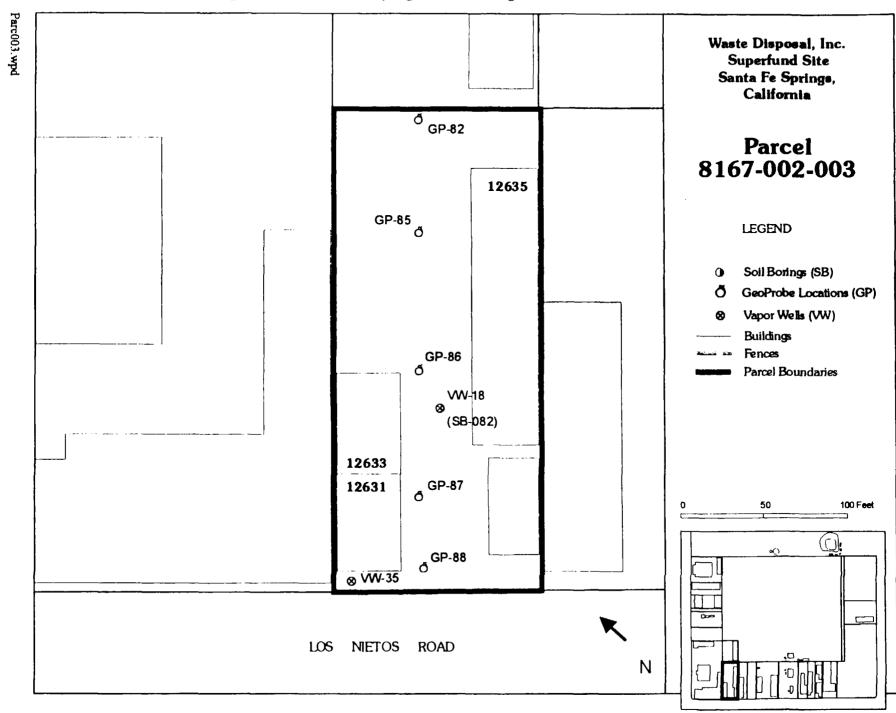
ppb = parts per billion

NE = no standard established

ND = not detected

\* Cleanup standard established in 1993 Record of Decision

Figure 2: Location of Sampling and Monitoring Points for Parcel 003



The results for these soil samples collected from boring SB-082 show the presence of the chemicals benzene and toluene, with the highest concentrations in the samples collected from nearest to the ground surface. Benzene and toluene are common contaminants in wastes, soil, and soil gas throughout the site area.

Vapor well VW18, installed within SB-082, has been sampled 6 times through April 1998. The results for this well (Table 2) show the presence of many chemicals including 1,2,4-trimethylbenzene, benzene, ethylbenzene, toluene, and xylene, all of which are typical of wastes disposed of at the site. The concentrations of benzene, chloroform, and methane measured in the field for soil gas samples collected from this well exceeded the interim threshold level for soil gas contaminants. The objective of the soil gas interim threshold levels is described below.

There are no groundwater monitoring wells located on this parcel. Borings were drilled and wells were installed within the adjacent parcels that were used by EPA in defining the extent of soil and groundwater contamination for the site as a whole. The estimated extent of the buried waste that surrounds the reservoir area as shown on Figure 3 is based on the results of both the 1988 investigation and the 1997-1998 site investigations.

#### 1995 Removal Action For Building at 12631 Los Nietos Road

In 1995, a tank removal was performed in an area south of the building at 12631 Los Nietos Road (between the building and the sidewalk). A former tenant of the building (Whittier Engraving) had used an underground tank for the discharge of plating wastes. Investigations performed on the tank determined that it was not a holding tank, but a septic tank that had leaked its contents. Targhee Environmental performed the tank and limited contaminated soil removal. Not all of the contaminated soil was removed, but Targhee Environmental concluded that residual contamination was limited and no further action warranted. Soil samples collected before and during the tank removal showed the presence of the metal zinc and total petroleum hydrocarbons, including trimethylbenzene and naphthalene, as being the primary contaminants. Benzene and trichloro-ethene, typical WDI site contaminants, were not reported for the samples.

#### 1997-98 EPA Soil Gas/Indoor Air Investigations

During the summer of 1997, EPA collected and analyzed soil gas and indoor air samples at the WDI site, including Parcel 003. The purpose of these investigations was to evaluate the potential for migration of soil gas contaminants from the buried waste into the indoor air of the on-site buildings. In order to establish contaminant levels that could be used to determine the need for future site investigations, EPA developed interim threshold levels for chemicals found in soil gas on-site. If a chemical was found to exceed the interim threshold level, EPA determined the need for additional investigations such as indoor air monitoring or expansion of the soil gas monitoring well network. The interim threshold levels are presented in the tables in this report along with the analytical data for Parcel 003.

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Table 2: Soil Vapor Well Analytical Results for Parcel 003

Sample Location	Sol Cas fafefin Threshold Cevels	VW18	VW-18	<b>W</b> 18	.v.fs	V.V. 18	vivit				
Sample Date		1988	Jun-95	Aug-97	Sep-97	Feb-98	Apr-98	Feb-98	Feb-98	Apr-98	Apr-98
Sample Depth (ft)		6-36	6-36	6-36	6-36	6-36	6-36	5-10	33-38	5-10	33-38
Concentration Units	pphy	ppbv	ppbv	pphv	ppbv	ppbv	ppbv	ррьү	ppbv	ppbv	ppbv
Analytical Parameter											
1,1,1-Trichloroethane	18,400	6.7	ND	34	41	ND	ND	260	16	49	_ 11
1,1-Dichloroethane	12,800	NR	ND	ND	ND	ND	_ ND	ND	ND	ND	2.5
1,2,4-Trimethylbenzene	NE	NR	NA	48	ND	NR	NR	NR	NR	NR	NR
1,2-Dichloroethane	NE	ND	ND	26	ND	ND	ND	1.60	ND	ND	2.3
1,3,5-Trimethylbenzene	NE	NR	NA	46	ND	NR	NR	NR	NR	NR	NR
2-Hexanone	NE	NR	ND	NR	NR	ND	ND	ND	ND	ND	ND
Acetone	15,600	NR	ND	NR	NR	ND	ND	11	46	6.3	3.4
Benzene	100	NR	2000	170	400	1600	420	ND	ND	ND	МD
Bromodichloromethane	NE	NR	ND	NR	NR	ND	ND	4.1	ND	ND	ND
Carbon Disulfide	NE	NR	ND	NR	NR	ND	1,100	11	ND	15	1.9
Chloroform	170	9.7	ND	ND	820	ND	ND	6.4	41	ND	50
Ethylbenzene	24,500	NR	270	52	55	ND	ND	ND	ND	ND	ND
m- & p- Xylene(s)	7,140	NR	1,100	140	130	ND	500	ND	ND	ND	ND
Methylene chloride	NE	ND	ND	ND	230	ND	ND	3	ND	ND	ND
Styrene	NE	NR	ND	ND	ND	350	ND	ND	ND	ND	ND
Tetrachloroethene	532	6.4	ND	8.7	ND	ND	ND	6.6	16	2.9	28
Toluene	10,600	NR	110	23	ND	530	190	ND	ND	ND	ND
Trichloroethene	411	NR	ND	ND	ND	ND	ND	44	1600	50	1,500
Trichlorofluoromethane	NE	NR	ND	ND	ND	ND	ND	1.30	ND	ND	1.2
Trichlorotrifluoroethane	NE	NR	ND	NR	NR	ND	ND	0.86	ND	ND	1.1
Vinyl Chloride	12.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	7,140	NΛ	35	ND	ND	ND	ND	ND	ND	ND	ND
Field Methane	%	%	%	%	%	%	%	9%	9%	%	%
%	1.25	ND	NΑ	0.3	1.4	NA	NA	NA	NA NA	NA	NA
Lab Methane	ppmv	ppmv	ppmy	ppmv	ppmv	ppmv	ppmv	ppmy	ppmv	ppmv	ppmv
ppmv	12,500	NΛ	NA	34	NA	9.6	6.4	2.9	5.3	1111	3.7

<sup>&</sup>lt;sup>1</sup> Split sample NE = Not established ppbv = Parts per billion by volume

ND = Not detected

NR = Not reported

NA = Not analyzed

ppmv = Parts per million by volume

Figure 3: Waste Disposal, Inc., Santa Fe Springs, CA Estimated Extent of Buried Waste

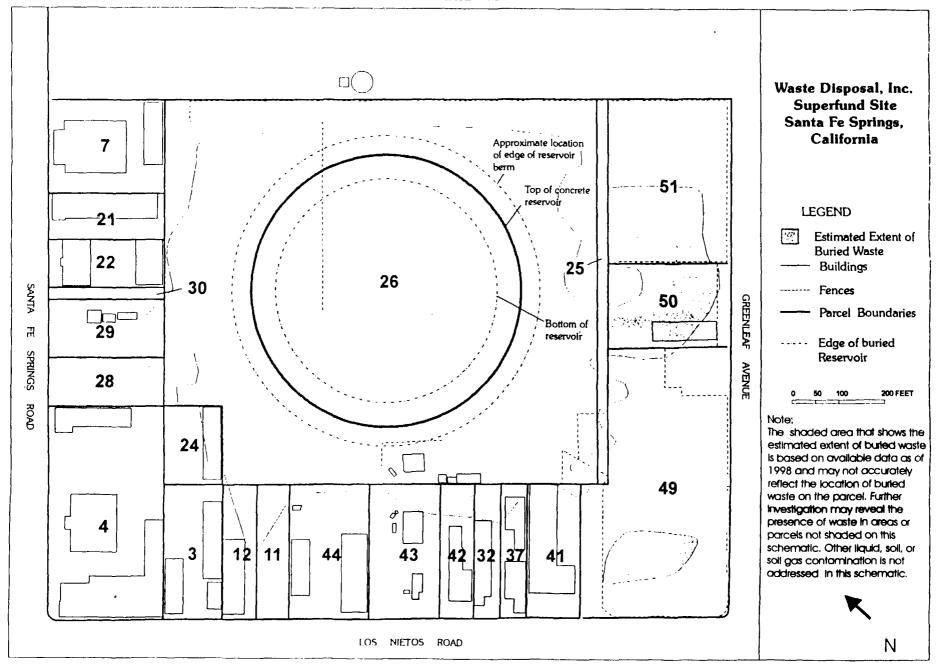


Table 3: Indoor Air Sample Analytical Results for Parcel 003

Sample Location Bldg. Address: Los Nictos Road	Interime Threshold Levels			12635	12635	12635
Sample Date		Sep-97	Feb-98	Jul-98	Nov-98	Feb-99
Concentration Units	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv
Analytical Parameter						
1,1,1-Trichloroethane	368	3	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	NE	1.0	NR	ND	ND	ND
1,2,4-Trimethylbenzene	NE	12	8.7	NA	NA	NA
1,3,5-Trimethylbenzene	NE	4	ND	NA	NA	NA
Benzene	2	6	4.6	2.3	4.7	6.6
2-Butanone	NE	NA	NA	1.1	ND	2.1
Carbon Disulfide	NE	NA	2.2	6.5	4.0	2.6
Carbon tetrachloride	0.68	0.5	ND	ND	ND	ND
Chloroform	3.4	0.2	ND	ND	ND	ND
Dichlorodifluoromethane	NE	8	8 1	NA	NA	NA
Ethylbenzene	490	9	5.8	1.8	2.5	7.0
m- & p- Xylene(s)	142.8	35	24	7.0	8.2	25
Methylene chloride	NE	2	4.3	ND	ND	ND
Methyl-terbutyl ether	NE	NA	54	8.5	61	63
o-Xylene	142.8	13	8.7	2.6	3.1	9.1
Styrene	NE	l	0.86	1.7	0.94	ND
Tetrachloroethene	10 6	0.8	2 0	ND	ND	ND
Toluene	212	66	45	12	15	48
Trichloroethene	8.2	0.8	ND	ND	ND	ND
Trichlorofluoromethane	NE	1	ND	ND	ND	ND
Vinyl Chloride	0.25	0.5	ND	ND	ND	ND
Concentration Units	ppmv	ppmv	ppmv	ppmv	ppmv	ppmv
Methane	12,500	NA	3.1	3.5	3.2	3.9

NE = Not established ppbv = Parts per billion by volume ND = Not detected ppmv = Parts per million by volume

NA = Not analyzed

Table 3: Indoor Air Sample Analytical Results for Parcel 003 (continued)

Sample Location Bldg. Address: Los Nietos Road	Interin Threshold Levels	126.	12613	12633	1767	12633
Sample Date		Aug-97	Aug-97	May-98	Nov-98	Feb-99
Concentration Units	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv
Analytical Parameter						
1,1,1-Trichloroethane	368	0.6	ND	0.2	ND	ND
1,1,2,2-Tetrachloroethane	NE	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	NE	3	1	ND	NA	NA
1,3,5-Trimethylbenzene	NE	0.9	0.3	ND	NA	NA
Benzene	2	0.8	0.6	0.25	9.4	2.0
Carbon disulfide	NE	NA	NA	ND	ND	ND
Carbon tetrachloride	0.68	ND	ND	ND	ND	ND
Chloroform	3.4	0.6	ND	0.68	2.0	1.1
Dichlorodifluoromethane	NE	0.8	ı	ND	NA	NA
Ethylbenzene	490	1	0.3	ND	ND	ND
m- & p- Xylene(s)	142.8	4	1	ND	2.2	3.1
Methylene chloride	NE	370	7	9.1	7.3	ND
Methyl terbutyl ether	NE	NA	NA	6.6	3.0	10.0
o-Xylene	142.8	2	0.4	ND	0.92	1.2
Styrene	NE	ND	0.3	ND	1.4	ND
Tetrachloroethene	10.6	0.8	ND	ND	ND	ND
Toluene	212	13	2	ND	4.9	6.3
Trichloroethene	8.2	ND	ND	ND	ND	ND
Trichlorofluoromethane	NE	0.3	0.7	0.63	ND	ND
Vinyl Chloride	0.25	ND	ND	ND	ND	ND
Concentration Units	ppmv	ppmv	ppmv	ppmv	ppmv	ppm∨
Methane	12,500	NA	NA	ND	4.1	3.8

NE = Not established ppbv = Parts per billion by volume ND = Not detected ppmv = Parts per million by volume NA = Not analyzed

EPA developed the interim threshold levels based on certain assumptions and property uses at the site. For each chemical, EPA calculated a risk range and selected a concentration level that was within a one in one million (10<sup>-6</sup>) or one in 100,000 (10<sup>-5</sup>) cancer risk, depending on the chemical. Exceedance of that concentration does not necessarily indicate an immediate risk. The levels are interim for the purposes of the site investigation, and may or may not be adopted as threshold levels for the final remedy. Compounds detected in indoor air also were compared to background concentrations for chemicals found in the air of the industrial setting of the Santa Fe Springs area.

Soil gas samples were collected from five temporary probes (GP82, GP85 to GP88) shown on Figure 2. The temporary probes were installed by hammering stainless-steel rods to a depth of about 10 ft and then attaching Teflon tubing to an adapter at the bottom of the rods. A portable vacuum pump was used to collect the samples for on-site analysis. Field instruments were used also to detect volatile organic chemicals and methane. There were no detections of methane or volatile organic chemicals in any of the temporary probe soil gas samples analyzed for Parcel 003.

Also during the summer of 1997, EPA initiated indoor air sampling within the buildings located at 12631, 12633, and 12635 Los Nietos Road. Indoor air samples were collected over a 24-hour sampling period in 6-liter stainless steel canisters for off-site analysis for volatile organic compounds. Table 3 presents the indoor air results for the buildings. Benzene and vinyl chloride were the two chemicals that exceeded interim threshold levels in samples collected from the building at 12635 Los Nietos. This building is used for a variety of activities including plastic material manufacturing; therefore, some volatile organic chemicals (such as benzene) and solvents would be expected to be present. Because vinyl chloride exceeded the interim threshold level, the building at 12635 Los Nietos was resampled by USEPA and the WDIG in February 1998, and continues to be sampled on a quarterly basis. Although vinyl chloride was not detected in subsequent sampling events, benzene detections remained above the interim threshold level. Because plastics and plastic molds are manufactured in this building, the chemicals detected may be a result of chemicals used in the manufacturing processes rather than from WDI site wastes. The interim threshold level for benzene was exceeded for one of four indoor air sampling events for the building at 12633 Los Nietos Road, which is used for the growing of organic produce. The source of the benzene is not known, although elevated benzene has been reported in soil gas for VW18 located near this building.

#### Soil Vapor Well Sampling Results

During the winter of 1998 the WDIG installed a soil gas monitoring well (VW35) at the site boundary adjacent to 12631 Los Nietos Road (See Figure 2). VW35 serves as a site boundary compliance monitoring point. VW35 was installed with two soil gas probes screened at different intervals relative to the wastes disposed of at the site. The shallow probe was placed at between 5 and 10 feet below ground surface to monitor the soil gas interval above the buried waste and the deeper probe was placed between 33 and 38 below ground surface to monitor soil vapor below the buried waste interval.

Table 2 presents the analytical results for samples collected from VW35 and concurrent sampling of VW18 in 1998. A number of chlorinated and non-chlorinated solvent chemicals were reported for the samples

collected from these wells. The interim soil gas threshold level was exceeded for benzene in the samples analyzed from VW18. Vinyl chloride was not detected. For samples collected from VW35, the threshold level was not exceeded for benzene, but was exceeded for trichloroethene for the samples collected from the probe screened at 33 to 38 feet below ground surface.

#### WDIG Remedial Design Investigative Activities 1997-98

During the fall of 1997 and spring and summer of 1998, the WDIG conducted a number of studies at the WDI site. These studies included the installation of soil vapor wells (results presented above), the drilling of soil borings for soil/waste characterization, the evaluation of the effectiveness of soil vapor extraction to control soil gases, and the evaluation of reservoir area liquids removal techniques. None of these investigations occurred within Parcel 003.

# **SUMMARY OF ENVIRONMENTAL SAMPLING RESULTS FOR APN 8167-002-003**

Site investigations performed in 1988-89, 1995, 1997, 1998, and 1999 have evaluated soil, soil gas, and the indoor air quality of the buildings located on Parcel 003. Based on the results from soil borings drilled on this parcel and adjacent parcels, it appears that the buried waste that underlies much of the central portion of the WDI site does not extend beneath Parcel 003. Further investigation would be necessary to conclude finally that no buried waste lies beneath Parcel 003. The soil gas results for this parcel indicate that solvent or petroleum-related sources of soil gas contamination may be present within this parcel. A tank removal action performed at the southern end of the parcel involved removal of a septic tank and soil contaminated by petroleum hydrocarbons. Soil with limited petroleum contamination was left in place. The limited indoor air data for the parcel indicate the presence of benzene and vinyl chloride in indoor air for one building (12635 Los Nietos), and benzene in a second building (12633 Los Nietos). It is not known whether the sources of these chemicals are related to chemicals currently being used within the buildings, atmospheric air, or soil gas contamination. No significant impact to air quality due to soil gas contaminants beneath the parcel was observed in indoor air samples collected from the third building located on this parcel. There are no groundwater wells on this parcel. Based on measurements taken from wells installed in adjacent parcels, groundwater is approximately 40 feet below ground surface. Groundwater samples collected from the adjacent wells have shown some chemicals found in wastes at the site.

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- TRC. 1999d. Technical Memorandum No. 9A Soil Vapor Extraction Testing, Report of Findings, Waste Disposal, Inc. Superfund Site. March 1999.

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- U.S. Environmental Protection Agency (USEPA), 1988. Aerial Photographic Analysis of Waste Disposal, Inc., Whittier, California. March 1988.
- USEPA, 1989. Final Endangerment Assessment, Waste Disposal, Inc. Site, Santa Fe Springs, California. November 1989.
- USEPA, 1993a. Superfund 1992 Groundwater Monitoring Report, Waste Disposal, Inc. Site, Santa Fe Springs, California. January 1993.
- USEPA, 1993b. Feasibility Study Report for Soils and Subsurface Gas, Waste Disposal, Inc. Superfund Site, Santa Fe Springs, California. August 2, 1993.
- USEPA, 1993c. Record of Decision Soil and Subsurface Gas Operable Unit, Waste Disposal, Inc. Superfund Site, Santa Fe Springs, California. December 22, 1993.
- USEPA, 1993e. Administrative Order for Remedial Design Docket No. 94-17, Waste Disposal, Inc. Superfund Site, Santa Fe Springs, California. December 27, 1993.
- USEPA, 1997a. Attachment 2- Amended Scope of Work for Remedial Design. Waste Disposal, Inc. Superfund Site Soil and Subsurface Gas Operable Unit, Santa Fe Springs, California. March 1997.
- USEPA. 1997b. Docket No. 97-09 Amended Administrative Order for Remedial Design and Other Response Actions (amending Docket No. 94-17), Waste Disposal, Inc. Superfund Site, Santa Fe Springs, California. 1997.
- USEPA, Environmental Response Team Center, 1998a. Area 7 Geoprobe Characterization Report, Waste Disposal, Inc. Site, Santa Fe Springs, California. December 1998.
- USEPA, Environmental Response Team Center, 1998b. Location of Septic Tanks, Dry Wells, and Trenched Areas, Waste Disposal, Inc. Site, Santa Fe Springs, California. Status Report, December 1998.
- USEPA, Environmental Response Team Center, 1999a. Reservoir Characterization Report, Volume I (Physical Characterization) and Volume II (Chemical Characterization), Waste Disposal, Inc. Site, Santa Fe Springs, California. January 15, 1999.

# **ATTACHMENTS**

# ATTACHMENT 1 WASTE DISPOSAL, INC. APN 8167-002-003 Chain of Title Through February 5, 1997

No. 1 01-15-21 Book 134 Page 213 of Official Records James Weaver, et. al Brenton S. Carr Granted oil leasehold

No. 2 06-15-21 Book 332 Page 140 of Official Records Brenton S. Carr James Weaver, et al. Surrendered oil leasehold

No. 3 11-26-21 Book 587 Page 368 of Official Records Pacific Land Improvement Co. Chanslor-Canfield Midway Oil Co. Grant deed

No. 4 01-22-32 Book 11335 Page 264 of Official Records Chanslor-Canfield Midway Oil Co. General Petroleum Corp. of CA Grant deed to real property, oil rights reserved by seller

No. 5 03-01-40 Book 17327 Page 128 of Official Records General Petroleum Corp. of CA Public record Notice of non-responsibility

No 6 02-02-42 Book 19044 Page 385 of Official Records General Petroleum Corp. of CA Ford Alexander Corp. Deed to real property, oil rights reserved by Chanslor-Canfield

No. 7 02-26-46 Book 22789 Page 395 of Official Records Ford Alexander Corp. Public record Notice of completion of work No. 8
10-21-47
Book 2550 Page 167 of Official Records
Ford Alexander Corp.
N. B. Hudson
Grant deed to real property, oil rights reserved by Chanslor-Canfield

No. 9 10-21-47 Book 25500 Page 169 of Official Records N.B. Hudson F. Caneer, D. L. Carter, Marvin Pitts Grant deed to an 1/4 undivided interest each

No. 10
04-28-49
Book 37358 Page 244 of Official Records
N. B. Hudson, F. Caneer, Wanda Caneer, D. L. Carter, Zelda Carter, Marvin Pitts, Cecilia Pitts
Leslie M. Holbrook, Evelyn I. Holbrook, Raymond Holbrook
(as Holbrook and Son)
Grant deed

No. 11 12-30-49 Book 37361 Page 362 of Official Records Holbrook & Son Public record Notice of completion

No. 12 10-05-51 Book 37358 Page 244 of Official Records Chanslor-Canfield Midway Oil Co. Atlantic Oil Co Leased oil & gas rights

No. 13 10-05-51 Book 47409 Page 100 of Official Records Chanslor-Canfield Midway Oil Co. Public record Notice of non-responsibility

No. 14
06-15-53
Book 41974 Page 191 of Official Records
Morton and Dolley, a partnership: Harold C. Morton, Dorothy F. Morton, Chester F. Dolley
California Bank, as beneficiary; California Trust Co., as trustee
Deed of trust on oil lease interest

No. 15 10-13-54

Instrument No. 3279

Leslie M. Holbrook, Evelyn I. Holbrook, Raymond Holbrook,

dba Holbrook and Son

Doris Johnson

Grant deed

No. 16 10-13-54

Instrument No. 3278

Doris Johnson

Leslie M. Holbrook, Evelyn I. Holbrook, Raymond Holbrook

(as Holbrook and Son)

Grant deed

No. 17 10-24-55

Instrument No. 3705

N. B. Hudson, et al.

Leslie M. Holbrook, Evelyn I. Holbrook, Raymond Holbrook

(as Holbrook and Son)

Grant deed

No. None

Instrument No. Unrecorded

Leslie M. Holbrook, Evelyn I. Holbrook, Raymond Holbrook

(as Holbrook and Son)

Holbrook and Son

Lease to 04-30-61

No. 18

09-14-56 (Doc. Date)

Book 52331 Page 1 of Official Records

Morton and Dolley, a partnership: Harold C. Morton, Dorothy F. Morton, Chester F. Dolley

California Bank, as beneficiary and trustee

Deed of trust on oil lease interest

No. 19

07-30-59

Instrument No 1445

Leslie M. Holbrook, Evelyn I. Holbrook, Raymond Holbrook, Donnis Holbrook

Security First National Bank, as beneficiary, Equitable Trust Co., as trustee

Deed of trust

No. 20

07-30-59

Instrument No. 1446

Leslie M. Holbrook, Evelyn I. Holbrook, Raymond Holbrook, Donnis Holbrook

Security First National Bank, as beneficiary

Assignment of rents and leases

No. 21 07-12-61 Instrument No. 3868 City of Santa Fe Springs Public record Variance

No. 22 12-07-61 Instrument No. 4835 Equitable Trust Co., as trustee Persons entitled Full reconveyance, Affects Doc. No. 19

No. None
Instrument No. Unrecorded
Leslie M. Holbrook, Evelyn I. Holbrook, Raymond Holbrook, Donnis Holbrook
Holbrook and Son
Lease to 12-31-70 (unrecorded)

No. 23 11-08-63 Instrument No. 4882

Morton & Dolley, a partnership: Harold C. Morton, Dorothy F. Morton, Chester F. Dolley, Anna M. Dolley United California Bank, as beneficiary and trustee Deed of trust on oil lease interest

No. 24
03-12-64
Instrument No. 3381
Leslie M. Holbrook, Evelyn I. Holbrook, Raymond Holbrook, Donnis Holbrook
City of Santa Fe Springs
Easement

No. 25 02-16-65 Instrument No. 5962 United California Bank, as trustee Full reconveyance Persons entitled Affects Doc. No. 14

No. 26 02-16-65 Instrument No. 5963 United California Bank, as trustee Persons entitled Full reconveyance, Affects Doc. No. 18

No. 27 10-20-65 Instrument No. 1690 Raymond R. Holbrook, Security First National Bank, beneficiary; Equitable Trust Co., trustee Deed of trust No. 28 10-20-65 Instrument No. 1691 Raymond R. Holbrook, Security First National Bank, beneficiary Assignment of rents and leases

No. 29 03-14-66 Instrument No. 2550 Leslie M. Holbrook, Raymond Holbrook Public record Notice of completion

No. 30 07-21-67 Instrument No. 3631 Leslie M. Holbrook Leslie M. Holbrook, Fern Holbrook, as community property Grant deed

No. 31 07-21-67 Instrument No. 3632 Leslie M. Holbrook Leslie M. Holbrook, Fern Holbrook, as community property Grant deed

No. 32 04-05-68 Instrument No. 3689 Raymond R. Holbrook Raymond R. Holbrook, Donnis H. Holbrook Grant deed

No. 33 04-05-68 Instrument No. 3692 Raymond R. Holbrook Raymond R. Holbrook, Donnis H. Holbrook Grant deed

No. 34 05-23-69 Instrument No. 2917 Mobil Oil Co. Public record Unit agreement No. 35 05-23-69 Instrument No. 2918 Mobil Oil Co. Public record Exhibits to unit agreement

No. 37

No. 36
08-25-69
Instrument No. 2535
United California Bank
Security Pacific National Bank
Assignment and substitution of trustee, Affects Doc. No.23

07-16-70
Instrument No. 1772
Equitable Trust Co., as trustee
Persons entitled
Full reconveyance, Affects Doc. No. 27

No. 38 07-16-70 Instrument No. 1773 Security Pacific National Bank, successors of Security First National Bank Persons entitled Reassignment of rents and leases Affects Doc. No. 28

No. 39
12-28-70
Instrument No. 1146
Mobil Oil Co
Public record
Certificate that Unit Agreement will become effective

No. 40 01-26-71 Instrument No. 1631 Mobil Oil Co Public record Counterpart C of Unit Agreement

No. 41 02-18-71 Instrument No. 3068 Chanslor-Western Oil & Development Co. Public record Agreement to become a party to unit agreement No. 42 08-17-71 Instrument No. 3195 Bell Petroleum Co, Roland A. Way, Ethel Eckels Public record Agreement to become a party to unit agreement

No. 43 08-21-72 Instrument No. 3990 Rodman Palmer Public record Agreement to become a party to unit agreement

No. 44 12-20-73 Instrument No. 3425 Catherine Yrisarri Public record Agreement to become a party to unit agreement

No. 45 03-04-74 Book D6189 Page 157 of Official Records Estate of Leslie M. Holbrook Fern M. Holbrook Final distribution

No. 46 03-22-74 Instrument No. 3808 Mobil Oil Co. Public record First revision of exhibit B of unit agreement

No. 47 04-05-74 Book D6224 Page 354 of Official Records Fern M. Holbrook Raymond R. Holbrook, Donnis H. Holbrook Grant deed

No. 48
04-15-74
Instrument No. 2865
Mobil Oil Co.
Public record
Second revision of exhibit B of unit agreement

No. 49 08-31-77 Instrument No. 77-965116 Raymond R. Holbrook, Donnis H. Holbrook Public record Covenant and affidavit No. 50 01-10-78 Instrument No. 78-30274 Raymond R. Holbrook, Donnis H. Holbrook Jack Perrin, beneficiary; Title Insurance and Trust Co., trustee Deed of trust

No. 51 01-26-78 Instrument No. 78-139060 Raymond R. Holbrook, Donnis H. Holbrook Southern California Edison Co. Easement

No. 52 04-29-82 Instrument No. 82-450139 Raymond R. Holbrook, Donnis H. Holbrook Raymond R. Holbrook and Donnis H. Holbrook Trusts Grant deed

No. 53
05-07-84
Instrument No. 84-540205
Ticor Title Insurance Co. of California, formerly Title Insurance and Trust Co., trustee Persons entitled
Full reconveyance, Affects Doc. No. 50

No. 54 07-19-91 Instrument No. 91-1112254 Atlantic Oil Co. Chanslor-Canfield Midway Oil Co. Quitclaim of oil and gas lease

**ATTACHMENT 2** 

Soil Boring Logs

#### FIELD BORING LOG

	OFS NUMBER:  PROJECT NAME: WASTE DISPOSAL INC. LOCATION: SANTA FE SPRINGS CALIFORNIA CLIENT NAME: EPA SITE MANAGER: D. MELCHIOR LOGGED BY: K. TILFORD							II Di	TILL DI SZ/I	orin Ing Rill Hand	G LO CONT ING I ER V	CATI RACT METH T/DR	OR: OD: OP:	STAN: DATU HSA 74/14	SELL BRO	DATE/TIME STARTED: 10/15/88 0800 S. DATE/TIME COMPLETED: 10/15/88 0951 TOTAL DEPTH: 40.00 SURFACE ELEVATION: 158.2203 WATER DEPTH: 0.00					
D E			GRJ	NPH1	C	roc									SAM	PLE	DATA				DESCRIPTION
P T H I N F			BOULDERS	8 8 L E		E D S A		N E S A	Ĺ	CLAY	SAMPLE#	8 L O W S 6*	O V A P P M	CGIXLEL	0 <b>D</b> O R	COLOR	MOISTURE	POR/PEN	U S C S Y M B		
0									*	*		000	0.0	0						0.0	CONCRETE AT SURFACE; FIRST SAMPLE TAKEN AT 5' DEPTH.
5									*			4 3 5	0.0	0	N	DB	SH	L	ML	0.0	CLAYEY SILT, DARK BROWN, UNIFORM, LOOSE, SLIGHTLY MOIST. NO VISIBLE CONTAMINATION NO SAMPLE RETAINED.
10									*		01 02 03 04	9 11 21	0.0	0	N	RS- LS	SH	L	ML	0.0	CLAY & SILT, RED BROWN TO BROWN, DENSE ROOT CASTS, SLIGHT IRON STAINING, SLIGHTLY MOIST, NO VISIBLE CONTAMINATION ORGANIC DUPLICATE. CLP SAMPLE.
15									*			15 22 30	1.0	0	N	LS	DR	L	ML	0.0	CLAY & SILT, SAME AS ABOVE; LIGHT BROWN, DRY; NO VISIBLE CONTAMINATION. NO SAMPLE RETAINED.
20											05 06	30 30 54	0.0	0	N	LB- RB	SH	L	SP	0.4	FINE SAND. LIGHT BROWN TO RED BROWN, UNIFORM, SLIGHT IRON STAINING, DENSE, SLIGHTLY MOIST, POORLY GRADED. ORGANIC DUPLICATE. CLP SAAMPLE.
25									*		09 10 12	45 37 40	1.0	0	М	GR-	SM	L	SM	0.4	FINE SAND/SILT. GREENISH GRAY, UNIFORM, POORLY SORTED, DENSE, SLIGHTLY MOIST, VISIBLE CONTAMINATION. ORGANIC DUPLICATE TAKEN. CLP SAMPLE.
30											13 14 16	7 12 20	0.0	0	N	GR-	SH	L	SM	0.4	FINE SAND/SILT. SAME AS ABOVE, ORGANIC DUPLICATE TAKEN. CLP SAMPLE.
35									*		17 18	35 32 50	24.0	0	M	GR-	SM	L	SH	0.4	SAME AS ABOVE. NO DUPLICATE TAKEN. CLP SAMPLE.
40					1		-				20 21	39 0 0	0.2	0		LS		М	SW	0.3	MEDIUM TO COARSE SAND. LIGHT BROWN, DENSE,UNCEMENTED, MEDIUM GRADED, LIGHT IRON STAINING. CLP SAMPLE. FINAL DEPTH 40'.

Clarification: The geologist recording descriptions of soil samples collected from various depth intervals noted "visible contamination" at the 25-foot sample interval. The geologist did not note what type of contamination was observed (e.g., drilling muds, oil staining, soil discoloration). Neither the field instrument measurements nor the laboratory analytical results identified the presence of "contamination" at these intervals, however.

•	DEPTH IN FEET	PID or FID (ppm)	PENETRATION RESISTANCE (BLOWS PER FOOT)	SAMPLE TYPE	, U.S.C.S.	PROFILE/ LITHOLOGY	WELL CONSTRUCTION DETAIL	MONITORING WELL WW-35 SHEET 1 OF '  DRILLING COURSING WALL HOZNAT  SAMPLER TYPE CONTINUON CAS  AND DIMENSION 5'x25"  FIELD ENGINEER A KAIY  GEOLOGIST A KAIY  EDITED BY A 10014  CHECKED BY GROUND SURFACE EL NUM  DESCRIPTION
	0 -	Nm	NA		ul ul			(4") Asphall suggect
	 			3.5	an Ven		2/2/2	(0-1.6') Sitt, Dark brown, trace of sound and gravel, unicoccos, moist, No adoc, No Staining (1.6'.3) Sitty sound to Soundy (it). Direk beams, trace of consersand and avoid mothers, mirrorant slick the sist of the sound in the second and around mothers.
	- 5 - 			(b-3,5)	د١		·   -   日 ·	Browel, mothing, milacous, slightly moist, No oder No staining  (3,-9) Clay, Daet become, teace of Sand (fine grained) hard, microcous, high plusticity, slightly moist, No oder, No staining
					cV .			(3,5-5) No Recovery
j	- 10 - -			(8-10)	nym1		1	(9-10) Silly Clay to Clayery Sill, Ped brown, teace of sound, - law plasticity, anacceous, shallbuy maish, No aday No staining.
				5	ml		1//	(10-12) Silty Sand to Soridy Silt beams, multing, miccipals, Sligholymant, No oda, No staining
	15-		. }	UO-K)				(12-16) Sill, Light gray, tear of Sand mothing, nicaceous, Sugarly moist, No ador, No Staining
				4.5	ml/sm			1(15) blowed to a of arough increase in sold (mice)
	 -20 -			42-193	Sp			(16-18') Silty Soud to Soundy Silt habit thrown team of growed - and broken lock tragmouts, fine ground sound mothing,
	- 			4.5			1, 10	ficially, Slightymaist No adox, No Staining
	 - 25-			(20-24.5			1 1	(18'-19.5') Sand, light brown, fine grand, parely graded, — microcous, mothery, shightly moist, No alone, No strining — (19.5'-2') No Recovery
•				5'	mb			(20-325) Silly Sand to Soudy Silt light brown to light gray, -
	30-			(\$\frac{1}{2}\)	/sn			flu graned sind, mothery, mica wous, stightly marst, No odor,
	- 30-			4			1///	(25') Broten cock tragments (25-17.5) increase in silt content
-	  _ 35 ~	1		(30-31)	Sp			(53.5-35) Sand, light gray, Fix grained, poolly graded, mothers -
					(31	35)	M	Total Redth (continuous (one): 35 Feet
1	40 -				rou	CORRE		Did not aucountic discuss on impacted naterial.  Did not aucountic discuss on impacted naterial.  Did not aucountic discuss on impacted naterial.  1st Apple: T.D. 30'(38-39) Gravel (30'-31) Gupr (hyd) (32-29') Gravel
	<u> </u>							29-13) Chips (high) (13.05)  200 Proba: T.D 10' (10.5) Grand (10.5-4) Chips (high) (4.3)
	<u> </u>			<u> </u>	<u></u>	<u> </u>	<u></u>	- Abetland On wit (3.8")
	PROJE	ECT N	AME		10			Sprace 10'.  A-Field/Blank MW Log Ne.V. 04100/32
	PROJE	ECT N			-25			ENVIRONMENTAL SOLUTIONS, INC.
	LOCAT	LION_	5	ant	<u> R</u> 8	كحديو	م.دک	<u>.</u>

**ATTACHMENT 3** 

Glossary of Terms

# Glossary of Terms and Acronyms for Superfund

Cleanup: Actions taken to deal with a release or threatened release of hazardous substances that could affect public health or the environment. The term "cleanup" is often used broadly to describe various response actions or phases of remedial responses such as the Remedial Investigation/Feasibility Study (RI/FS).

Community Relations: EPA's program to inform and involve the public in the Superfund process and respond to community concerns.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA): A Federal law passed in 1980 and modified in 1986 by the Superfund Amendments and Reauthorization Act (SARA). The Acts created a special tax that goes into a Trust Fund, commonly known as Superfund, to investigate and clean up abandoned or uncontrolled hazardous waste sites. Under the program, EPA can either;

- Pay for site cleanup when parties responsible for the contamination cannot be located or are unwilling or unable to perform the work, or
- Take legal action to force parties responsible for site contamination to clean up the site or pay back the Federal government for the cost of the cleanup.

Cost-Effective Alternative: The cleanup alternative selected for a Superfund site based on technical feasibility, performance, reliability, and cost. The selected alternative does not require EPA to choose the least expensive alternative. It requires that if there are several cleanup alternatives available that deal effectively with the problems at a site, EPA must choose the remedy on the basis of performance, reliability, and cost.

Feasibility Study (FS): See Remedial Investigation/Feasibility Study (RI/FS)

Information Repository: A file containing the current information, technical reports, and response documents regarding a Superfund site. The Information Repository is usually located in a public building that is convenient for local residents, such as a public library.

Operation and Maintenance (O&M): Activities conducted at a site after a response action occurs, to ensure that the cleanup or containment system is functioning properly.

Potentially Responsible Party (PRP): Any individual(s) or company(s) (such as owners, operators, transporters, or generators) potentially responsible for, or contributing to, the contamination problems at a Superfund site. Whenever possible, EPA requires PRP's, through administrative and legal actions, to clean up hazardous waste sites they have contaminated

**Proposed Plan:** The documentation of EPA's proposed remedy for a Superfund site based on the RI/FS. The Proposed Plan is put out for public comment and serves as the basis for input from all concerned parties. Comments generated from the Proposed Plan are compiled and considered by EPA and presented in the Record of Decision (ROD).

Public Comment Period: A time period during which the public can review and comment on various documents and EPA actions. For example, a Public Comment Period is provided when EPA proposes to a remedy at a site through a Proposed Plan.

**Public Hearing:** A public meeting held during the Public Comment Period where public testimony is taken by the EPA from any concerned parties. Comments provided during the Public Hearing are recorded in the record and are responded to by the EPA in the Response to Comments.

Record of Decision (ROD): A public document that explains which cleanup alternative(s) will be used at a Superfund site. The Record of Decision is based on information and technical analysis generated during the Remedial Investigation/Feasibility Study (RI/FS) and consideration of public comments and community concerns.

Remedial Action (RA): The actual construction or implementation phase that follows the Remedial Design of the selected cleanup alternative at a Superfund site.

Remedial Design (RD): An engineering phase that follows the Record of Decision when technical drawings and specifications are developed for the subsequent Remedial Action at a Superfund site.

Remedial Investigation/Feasibility Study (RI/FS): Two distinct but related studies. They are usually performed at the same time, and together referred to as the "RI/FS". They are intended to:

- Gather the data necessary to determine the type and extent of contamination at a Superfund site;
- Established criteria for cleaning up the site;
- Identify and screen cleanup alternatives for Remedial Action;
- Analyze in detail the technology and costs of the alternatives.

Remedial Project Manager (RPM): The EPA official responsible for overseeing the Remedial Response activities at a Superfund site.

Responsiveness Summary: A summary of both oral and written public comments received by EPA during a Public Comment Period on key EPA documents and EPA's response to those comments. The Responsiveness Summary is included in the Record of Decision as the record of community concerns for EPA decision-makers.

**Superfund:** The common name used for the Comprehensive Environmental Response, Compensation, and Liability Act.

Waste Disposal, Inc. Group (WDIG): The group of corporations identified as Potentially Responsible Parties that are named in EPA's enforcement order to perform investigations and remedial design activities for the WDI site.

# Acronyms

CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act

FS: Feasibility Study

O&M: Operations & Maintenance

PRP: Potentially Responsible Parties

**ROD:** Record of Decision

RA: Remedial Action

RD: Remedial Design

RI/FS: Remedial Investigation/Feasibility Study

RPM: Remedial Project Manager

WDIG: Waste Disposal, Inc. Group